



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/078,272	02/20/2002	Vyacheslav S. Belenko	CIT/K-0141	3409
34610 7590 10/25/2007 KED & ASSOCIATES, LLP P.O. Box 221200 Chantilly, VA 20153-1200			EXAMINER TRUONG, THANHNGA B	
			ART UNIT 2135	PAPER NUMBER
			MAIL DATE 10/25/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/078,272

Applicant(s)

BELENKO ET AL.

Examiner

Thanhnga B. Truong

Art Unit

2135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-7,9-12,14 and 16-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-7, 9-12, 14, and 16-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

1. Applicant's amendment filed on August 13, 2007 has been entered. Claims 1, 3-7, 9-12, 14, and 16 are pending. Claims 2, 8, 13, and 15 are cancelled and claims 1, 4-5, 7, 10-11, 14, and 16 are also amended by the applicant. Claims 17-18 are newly added by the applicant. At this time, claims 1, 3-7, 9-12, 14, and 16-18 are still rejected.

Response to Arguments

2. Applicant's arguments, filed August 13, 2007, with respect to Response to Election/Restriction have been fully considered and are persuasive. The previous rejection of Requirement for Restriction/Election has been withdrawn.

Applicant's arguments, filed April 16, 2007, have been fully considered but they are not persuasive.

Applicant argues that:

Kuroda does not teach or suggest a watermark type indicating whether the watermark is original or not. In addition, Applicant states that the claimed media owner identification information and Linnartz's serial number are different.

Examiner respectfully disagree with the Applicant and still maintains that:

Kuroda teaches the claimed subject matter. In fact, Kuroda teaches the digital video information DP and the analog video information AP are embedded with a watermark, a copy protection code and a code based on CGMS (Copy Generation Management System) (hereinafter to be referred to as a "CGMS"). **These are identification information (emphasis added)** for making the recording apparatus 10 and the reproducing apparatus 50 recognize the copy protection applied to the digital video information DP and the analog video information AP (column 7, lines 38-45 of Kuroda). Although Kuroda teaches embedding identification information having a function similar to the above into the display range of the image or the video image as a watermark, Kuroda is silent on the capability of showing the specific type of watermark as being owner identification (e.g., model number and serial number). On the other hand, Linnartz and Van Liew teach: (1) **A further strengthening is achieved**

Art Unit: 2135

if each player not only checks whether a watermark is present on consumer discs, but also check whether a valid serial number is embedded (emphasis added). Known cryptographic methods can be used for integrity checks, e.g. concatenating a digital signature to the serial number. This avoids that a pirate can tamper with serial numbers (column 6, lines 35-44 of Linnartz). (2) Identification information can include any of the manufacturer, model number, serial number, and purchaser or owner of the printing system 10. This information is encoded in the marker 22 and printed using a particular binary code (column 6, lines 55-59 of Van Liew). Thus, the combination of teaching between Kuroda, Linnartz, and Liew teaches the claimed subject matter. Furthermore, when a valid serial number is embedded into media or disc, this embedded information indicated the ownership identification number of media or disc owner. Thus Linnartz's serial number is the same as claimed limitation.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the combination of teaching between Kuroda, Linnartz, and Liew is efficient and proper.

Kuroda, Linnartz, and Liew do not need to disclose anything over and above the invention as claimed in order to render it unpatentable or anticipate. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claimed limitations.

For the above reasons, it is believed that the rejections should be sustained.

Claim Rejections - 35 USC § 103

Art Unit: 2135

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3-7, 9-12, 14, 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuroda et al (US 6,707,774), in view of Linnartz (US 7,000,113 B1), and further in view of Van Liew et al (US 7,002,710 B1).

a. Referring to claim 1:

i. Kuroda teaches:

(1) receiving an original media data set that includes a watermark, said original watermark including watermark type indicating whether said watermark is original or not [i.e., the digital video information DP and the analog video information AP are embedded with a watermark, a copy protection code and a code based on CGMS (Copy Generation Management System) (hereinafter to be referred to as a "CGMS"). These are identification information for making the recording apparatus 10 and the reproducing apparatus 50 recognize the copy protection applied to the digital video information DP and the analog video information AP (column 7, lines 38-45 of Kuroda)], media owner identification information indicating a media owner and a first copy control information for managing and controlling a media data copying process, said first copy control information being set to one of "copy freely", "copy one generation", "copy never", and "no more copies", [i.e., in the case of carrying out a digital satellite broadcasting of a moving picture by the satellite broadcasting system 200 as shown in Figure 1, for example, the digital video information DP transmitted from the satellite broadcasting system 200 and received by the satellite broadcasting receiver 301 is usually permitted to be recorded only once. In this case, the digital video information DP is One Copy. Further, when the digital video information DP such as a moving picture or the like is recorded in advance onto a read-only DVD 2 as shown in Figure 1 and the

Art Unit: 2135

DVD 2 is sold in the market, the reproduction of the digital video information DP recorded on the DVD 2 is usually prohibited. In this case, the digital video information DP is Never Copy. Further, when the DVD 2 recorded with the digital video information DP is distributed free of charge, the copying of the digital video information DP is not restricted in many cases. In this case, the digital video information DP is Copy Free (column 7, lines 21-37 of Kuroda). Furthermore, Kuroda teaches Further, there is also proposed a method of restricting the copying of a picture or a video image by embedding identification information having a function similar to the above into the display range of the image or the video image as a watermark (column 2, lines 1-5 of Kuroda)];

(2) playing said original media data set only if said first copy control information is set to "copy freely" or "copy one generation" [i.e., One Copy means the permission of recording the digital video information DP or the analog video information AP onto a recording medium only once. In other words, by One Copy, making what is called a first-generation copy is permitted, but making copy of a second-generation and after is prohibited (column 7, lines 11-16). In addition, as shown in Figure 1, for example, the digital video information DP transmitted from the satellite broadcasting system 200 and received by the satellite broadcasting receiver 301 is usually permitted to be recorded only once. In this case, the digital video information DP is One Copy (column 7, lines 23-27 of Kuroda)];

(3) embedding a player watermark into said played media data set if said first copy control information is set to "copy one generation", said player watermark including a second copy control information set to "no more copies" and player identification information including model number and unique serial number, wherein the second copy control information is derived from said first copy control information ; and transferring said player watermark-embedded media data set to an external device [i.e., the digital video information DP and the analog video information AP are embedded with a watermark, a copy protection code and a code based on CGMS (Copy Generation Management System) (hereinafter to be

referred to as a "CGMS"). These are identification information for making the recording apparatus 10 and the reproducing apparatus 50 recognize the copy protection applied to the digital video information DP and the analog video information AP. The recording apparatus 10 and the reproducing apparatus 50 are based on a predetermined rule on the copy protection that prescribes a disposition, a decision method, a scrambling method, etc. of the watermark, the copy protection code and the CGMS, respectively. As described later, the recording apparatus 10 and the reproducing apparatus 50 can control the recording and reproduction of the digital video information DP and the analog video information AP based on the watermark, the copy protection code and the CGMS (column 7, lines 38-54). Furthermore, the copy protection code represents one of One Copy and No More Copy. "No More Copy" means the prohibition of copying any more as the One Copy digital video information DP or the One Copy analog video information AP has been recorded once onto the DVD 1 or the like. In this case, when the One Copy digital video information DP or the One Copy analog video information AP is once recorded onto the DVD 1 by the recording apparatus 10 and then the digital video information DP recorded on the DVD 1 is read out by the reproducing apparatus 50 and is converted into the analog video information AP and a result is output to the outside, the copy protection code of One Copy is changed to No More Copy by the reproducing apparatus 50 (column 7, lines 66-67 through column 8, lines 1-12 of Kuroda)].

ii. Although Kuroda teaches embedding identification information having a function similar to the above into the display range of the image or the video image as a watermark, Kuroda is silent on the capability of showing the specific type of watermark as being owner identification (e.g., model number and serial number). On the other hand, Linnartz and Van Liew teach:

(1) A further strengthening is achieved if each player not only checks whether a watermark is present on consumer discs, but also check whether a valid serial number is embedded. Known cryptographic methods can be used for

Art Unit: 2135

integrity checks, e.g. concatenating a digital signature to the serial number. This avoids that a pirate can tamper with serial numbers (column 6, lines 35-44 of Linnartz).

(2) Identification information can include any of the manufacturer, model number, serial number, and purchaser or owner of the printing system 10. This information is encoded in the marker 22 and printed using a particular binary code (**column 6, lines 55-59 of Van Liew**).

iii. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to:

(1) modify Kuroda's CGMS (Copy Generation Management System) to clearly include the type of watermarks, like, model and serial numbers (**column 5, lines 20-22 of Linnartz**).

iv. The ordinary skilled person would have been motivated to:

(1) modify Kuroda's CGMS (Copy Generation Management System) to clearly include the type of watermarks, like, model and serial numbers, since the act of copying a moving picture or the like without permission is restricted by the copyright law, etc. Particularly, when a moving picture or the like is copied digitally, there occurs no quality degradation in the moving picture copied. Accordingly, it is necessary to severely restrict the copying of digital video information using a DVD in order to promote the distribution of DVD as well (**column 1, lines 38-45 of Kuroda**).

b. Referring to claims 3, 4-6, 9:

i. These claims have limitations that is similar to those of claim 1, thus they are rejected with the same rationale applied against claim 1 above.

c. Referring to claims 7 and 10:

i. These claims consist a watermark-based copy management system for digital media copy protection to implement the method of claims 1 and 4, thus they are rejected with the same rationale applied against claims 1 and 4 above.

d. Referring to claims 11, 12:

i. These claims have limitations that is similar to those of claims 5 and 6, thus they are rejected with the same rationale applied against claims 5 and 6 above.

e. Referring to claims 14 and 16:

i. The combination of teachings between Kuroda and Linnartz teaches the claimed subject matter. Linnartz further teaches:

(1) wherein said media owner identification is used to bind said media owner with said media data set [i.e., a further strengthening is achieved if each player not only checks whether a watermark is present on consumer discs, but also check whether a valid serial number is embedded. Known cryptographic methods can be used for integrity checks, e.g. concatenating a digital signature to the serial number. This avoids that a pirate can tamper with serial numbers (column 6, lines 35-44 of Linnartz)].

f. Referring to claims 17 and 18:

i. The combination of teachings between Kuroda and Linnartz teaches the claimed subject matter. Kuroda further teaches:

(1) wherein said second copy control information is set to "copy for display only" if said performed media data set is to be transferred to a displaying device, said "copy for display only" distinguishing a media data set for display only from said original media data set or a copied media data set for record (see Figure 3 and column 2, lines 1-5; column 7, lines 64-66; column 8, lines 55-64 of Kuroda); wherein said watermark generator embeds said device water mark including said second control information set to "copy for display only" if said performed media data set is to be transferred to a displaying device, said "copy for display only" distinguishing a media data set for display only from said original media data set or a copied media data set for record (see Figure 3 and column 2, lines 1-5; column 7, lines 64-66; column 8, lines 55-64 of Kuroda).

Conclusion

5. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is

Art Unit: 2135

not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanhnga (Tanya) Truong whose telephone number is 571-272-3858.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached at 571-272-3859. The fax and phone numbers for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2100.

TBT

October 19, 2007

Thanhnga B. Truong
Primary Examiner AU2135